Headquarters U.S. Air Force

I n t e g r i t y - S e r v i c e - E x c e l l e n c e

Time Critical Targeting

Brig Gen Jim Morehouse
Director of Command & Control
DCS, Air & Space Operations

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- **Definition…Performance Threshold**

- **The Kill Chain…Closing the Seams**

- **AF TCT Initiatives**
  - **AOC…Spiral Development**
  - **Predictive Battlespace Awareness**
  - **Data Links…Networking the Force**
  - **JEFX…Experimenting for the Future**

- **Conclusion**

Time Critical Target (TCT)

TCT: A TST with an extremely limited window of vulnerability or attack opportunity. These emerging targets challenge achievement of theater objectives and require immediate exploitation or attack IAW JFC guidance.

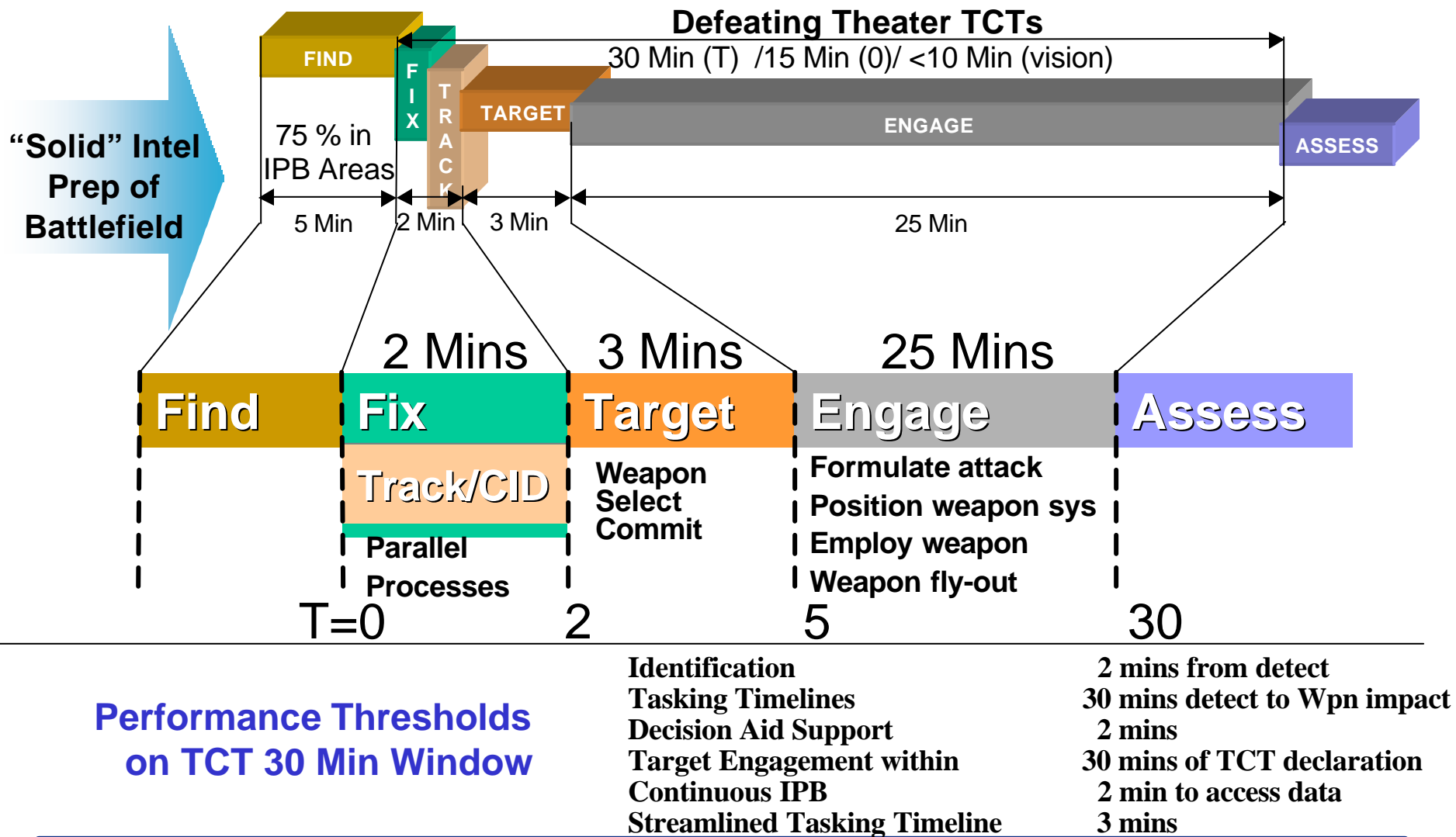*"From sensor… to strike… in single digit minutes."*

General Jumper

The effect on the 'target' may be kinetic or non-kinetic …from dropping bombs, to information operations , to humanitarian relief. Achieving the desired effect is the key

TCT - Core Challenge

"Solid" Intel Prep of Battlefield

Defeating Theater TCTs

30 Min (T) /15 Min (0)/ <10 Min (vision)

| FIND | FIX | TRACK | TARGET | ENGAGE | ASSESS |

75 % in IPB Areas

5 Min | 2 Min | 3 Min | 25 Min

Find	Fix	Target	Engage	Assess
	2 Mins	3 Mins	25 Mins	
	Track/CID	Weapon Select Commit	Formulate attack	
	Parallel Processes		Position weapon sys	
			Employ weapon	
			Weapon fly-out	

T=0   2   5   30

Performance Thresholds on TCT 30 Min Window

Identification	2 mins from detect
Tasking Timelines	30 mins detect to Wpn impact
Decision Aid Support	2 mins
Target Engagement within	30 mins of TCT declaration
Continuous IPB	2 min to access data
Streamlined Tasking Timeline	3 mins

Working The Seams

JIPB/Predictive Battlespace Awareness
- Digital Topographic Support System
- Automated Assistance with IPB

ISR Collection Plan
- ISR Manager

Dynamic Cueing

BDA
Sensor Coverage
Release Re-roles
Feedback/Update Databases

ASSESS

FIND

Geolocate, Validate, Verify
- ISR Manager

Correlate & Fuse Data
- DCGS
- JSWS Block 20

Identify- Certainty Estimate

Clearance to fire
- Datalinks
Laser spot
Weapon launch
Humanitarian airdrop

ENGAGE

FIX

TARGET

TRACK

Select Strike Package/Re-role
- Weapon Target Pairing Tool
Persistent tracking/PHID
ROE/Collateral Damage/No Strike
Coordinate Across AO/Phase Lines
Final Approval

TACP

Prioritize/Sort
Follow/Relocate
- NCCT

PHID
Resolve Data Link Ambiguities
- JICO Toolkit

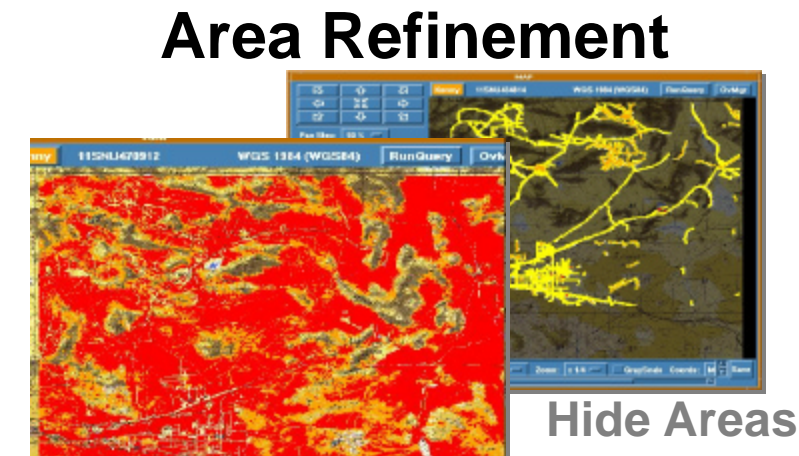**U.S. AIR FORCE**

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Doctrine Models

Employment Concept

TTP: CCD & Mobility
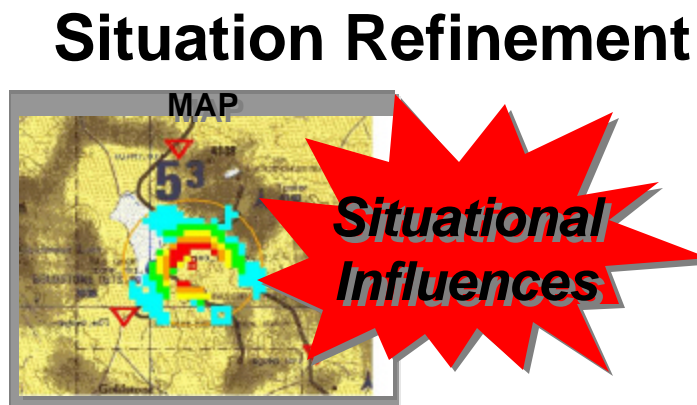
Area Refinement

Hide Areas

Terrain Suitability: SA-15
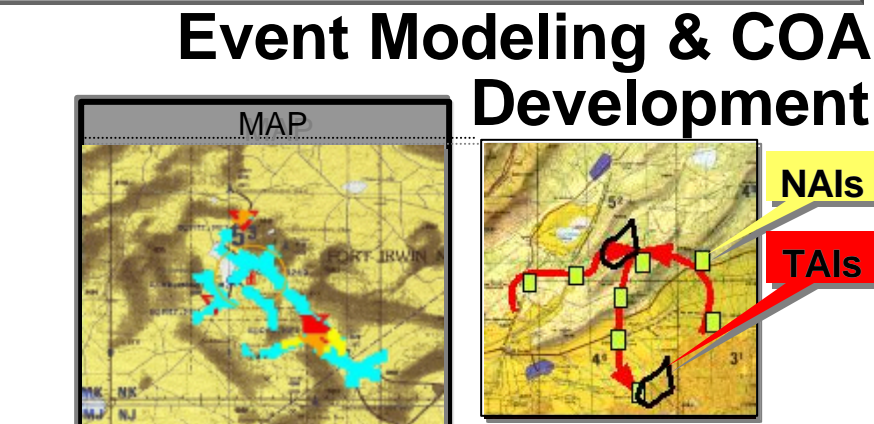
Situation Refinement

MAP

Situational Influences

Observation Refinement

Event Modeling & COA Development

MAP

NAIs

TAIs

Movement Projection

COA Package
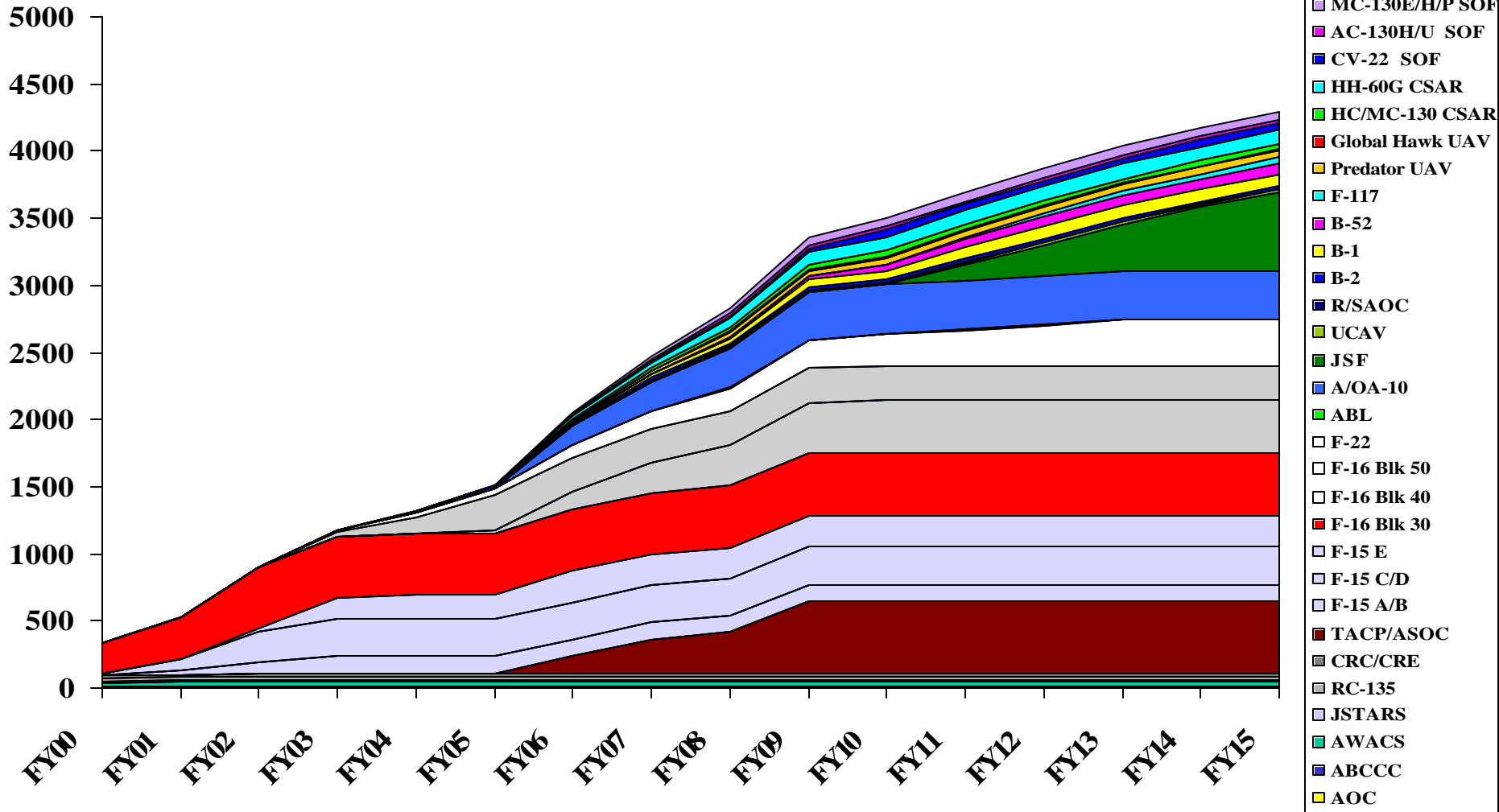
Key Enabler: Data Links

- **Data Links now a major AF acquisition program**

- **Air Force C2 & ISR Center:**
  - **Built roadmap**
  - **Consolidates requirements**
  - **Integrates POM submission**
  - **Monitors execution**

- **AF now has 5 datalink Program Elements: Fighter, Bomber, C2ISR, Airlift and Infrastructure**

- **Electronic Systems Center provides enterprise integration**
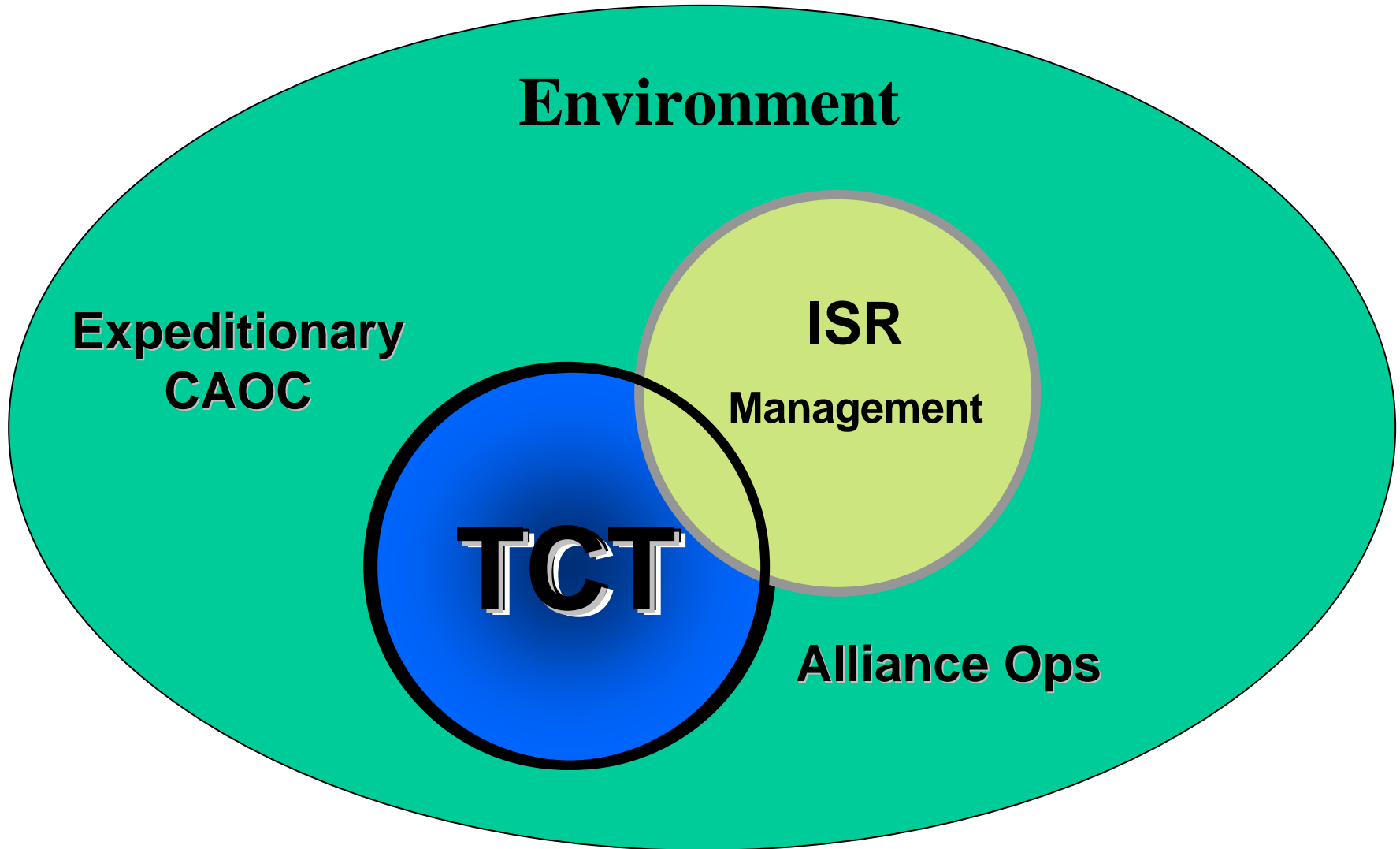
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Platforms

Legend (top to bottom):
- MC-130E/H/P SOF
- AC-130H/U SOF
- CV-22 SOF
- HH-60G CSAR
- HC/MC-130 CSAR
- Global Hawk UAV
- Predator UAV
- F-117
- B-52
- B-1
- B-2
- R/SAOC
- UCAV
- JSF
- A/OA-10
- ABL
- F-22
- F-16 Blk 50
- F-16 Blk 40
- F-16 Blk 30
- F-15 E
- F-15 C/D
- F-15 A/B
- TACP/ASOC
- CRC/CRE
- RC-135
- JSTARS
- AWACS
- ABCCC
- AOC

Environment

Expeditionary CAOC

ISR

Management

TCT

Alliance Ops

JEFX 02 TCT Critical Capability Statements

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- **Conduct terrain analysis to refine threat location and movement projections (*FIND*)**

- **Provide continuous IPB development and enemy COA refinement using real time sensor data (*FIND*)**

- **Display near real time TCT ground picture for evidence accrual and rapid ID (*FIND, FIX, TRACK, TARGET*)**

- **Develop rapid, high fidelity targeting info for TCT engagements (*FIX, TARGET*)**

- **Provide rapid weapon target pairing based on commander's guidance, ROE, target priority, attrition analysis and probability of kill (*TARGET, ENGAGE*)**

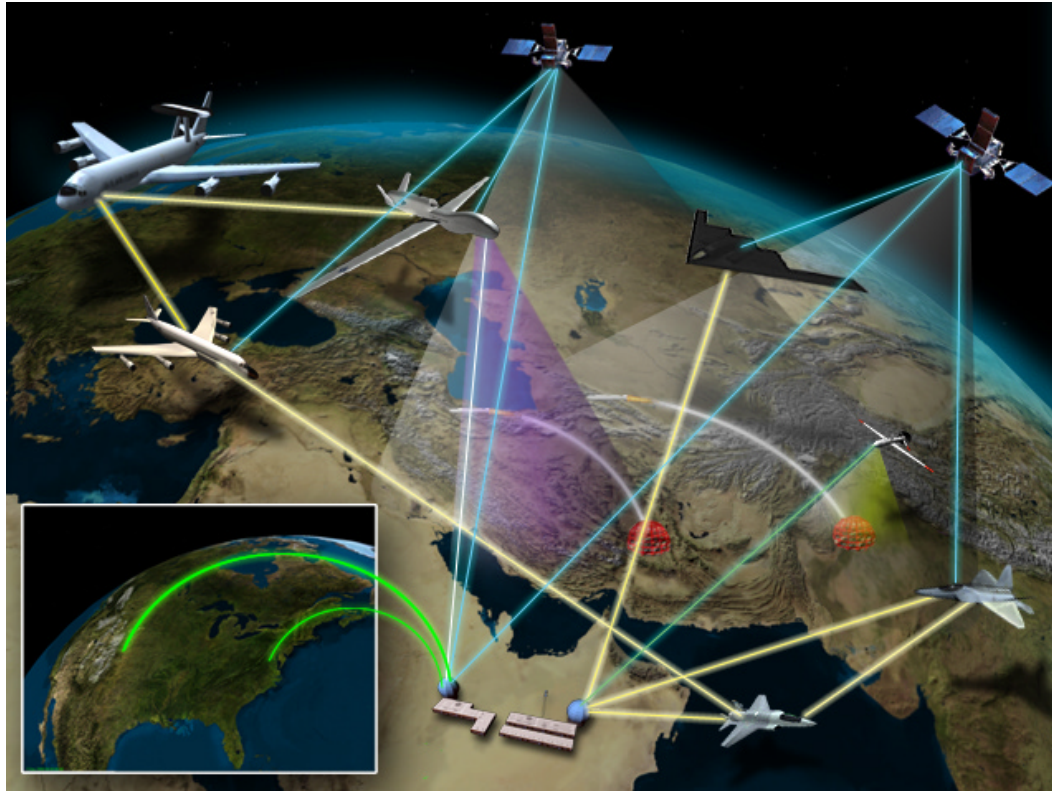- **Enable data links for rapid TCT Ops (*FIND, FIX, TRACK, TARGET, ENGAGE and ASSESS*)**

Performance Threshold : F2T2EA TCTs in JEFX 02 in 30 minutes or less

Conclusion

AF goal is to use air and space power to apply right effects to achieve battlespace dominance

Horizontal Integration of Manned, Unmanned and Space Platforms

Key to achieving the right effects is warfighter having the right information at the right time to make the right decision. Seamless, integrated C4ISR is enabler for making that decision.